

ABSTRACT OF THE DISCLOSURE

A process of fabricating a corrosion and erosion resistant component. In one embodiment, the process entails applying one or more corrosion resistant materials onto a pre-formed, sacrificial core and then enclosing this first material and the core with a surrounding capsule. Any space within the capsule is then substantially filled with a second material, after which the capsule is sealed and treated to cause the second material to densify and to metallurgically bond to the first material. Thereafter, the core material and capsule are removed via chemical and/or mechanical processes to yield a component with a shape that approximates the space that existed between the capsule and the first material, and with an outer surface that reflects the shape of the outer surface of the core and the inner surface of the capsule.

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